Gauging for Gas

The Gas Generation Test System measures and analyzes gas buildup in drums, qualifying them for possible shipment.

Gas Generation Test System

INEEL's Transuranic Waste Project managers needed to measure the build-up of gases in contact-handled transuranic waste drums to see if they meet TRUPACT-II safety requirements. Determining actual gas generation rates increases the number of qualified waste drums that can be shipped to the Waste Isolation Pilot Plant in New Mexico. In FY 2001 the **Gas Generation Test System** enabled the project to increase the number of certified waste drums qualified for shipment. All stored contact-handled transuranic waste

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The Gas Generation Test System speeds retrieval of analytical data from months to minutes

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at the INEEL must be removed from Idaho to meet an agreed-upon milestone withh the state of Idaho. This system—comprised of containment canisters, a mobile gas analysis cart, and an automated data management system, allows direct measurement of gas generation rates. This technology makes it possible to meet enforceable milestones to remove stored transuranic waste from Idaho. Based on sampling equipment built by Rocky Flats engineers, INEEL engineers designed and constructed a system for INEEL use by modifying the systems' safety and sampling capacity and building-in analytical capabilities.

An operator uses the system's laptop to analyze readings taken from waste drums.

Benefits:

- Plays a critical role in complying with enforceable interim milestone
- Speeds retrieval of analytical data from months to minutes—accelerates schedule
- Measures gas generation rates directly

Containment canisters and high-accuracy pressure gauge on Mobile Gas Generation Test System

This system allows direct measurement of gas generation rates making it possible to meet enforceable milestones.